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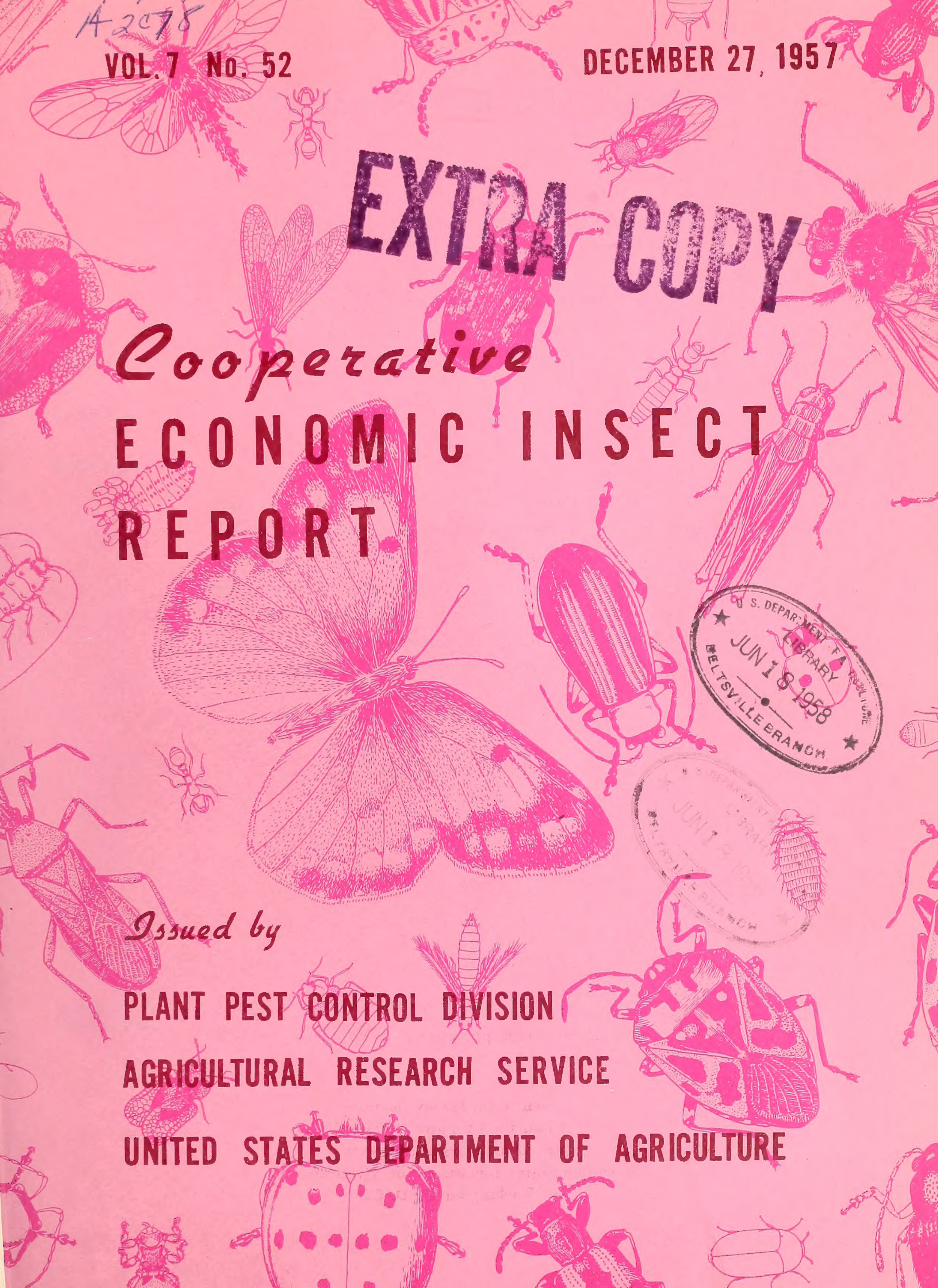

Cooperative ECONOMIC INSECT REPORT

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AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Volume 7 December 27, 1957 Number 52

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

SCREW-WORM infesting several cows at Crowley, Acadia Parish, Louisiana. (p. 942).

SUMMARY OF INSECT CONDITIONS - 1957 - in Maryland. (p. 943).

INSECTS not known to occur in the United States. (p. 949).

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Reports in this issue are for the week ending December 20 unless otherwise designated.

WEATHER FOR THE WEEK ENDING DECEMBER 23

The occurrence of the winter solstice, on the 21st was accompanied by a week of abnormal warm weather throughout most of the country. Precipitation was most significant generally from the Pacific Coast to the Western Slopes of the Divide and from the Mississippi River to the Atlantic, while little or none fell in the Southwestern Desert, the middle portion of the Plains from western Texas through North Dakota, and in the Florida peninsula. Most outstanding this week were the numerous and destructive tornadoes reported on Wednesday in southern Illinois and nearby areas of adjacent states. From Wednesday afternoon until midnight, over 26 tornadoes were reported to have occurred. A preliminary survey made in Illinois indicated 12 dead, hundreds injured, many homeless and damages estimated at near four million dollars. One of two storm centers, developing in the Southern Great Plains and moving northeastward over the Lakes into southeastern Canada, played a part in setting off this severe storm activity and bringing generous rains to the middle Mississippi and lower Ohio Valley and the Lakes Region. Training frontal activity of the second storm center, which followed closely behind the first, brought generous amounts to the Northeast also. Weekly total exceeded 4 inches in locations in Missouri and Illinois, and 6 inches in Green County, New York. Lowland flooding was reported in these areas and likewise in Pennsylvania and New England.

Coastal storms moving in over the Northwest were responsible for most of the precipitation which fell in western sections of the country and the heavy snow which accumulated at high elevations in Washington, Oregon and Idaho. Reports indicated that as much as 5 feet of snow fell at Stampede Pass in Washington during the week, and at Paradise Ranger Station in the same state 105 inches was measured on the ground near the weekend. Snow depths in Cascade are 60 to 70 inches at 4,000 feet and 100 inches at 8,000 feet. Warm temperatures and heavy rains melted the snow cover at lower elevations and on Monday morning only the extreme northern portions of Minnesota, Wisconsin, Michigan and New England reported snow on the ground. Many daily record maximum temperatures were equalled or exceeded in the Northeast near or over the weekend, and weekly departures exceeded plus 12° throughout the northeast and in the Northern Plains states. Departures of plus 18° or more were common to northeastern Montana, northern North Dakota and northwestern Montana, while at Boston, Massachusetts, daily temperatures were plus 25° and plus 24° on the 20th and 21st, respectively. Only in southern Florida were weekly temperatures averaged below normal, and there only by a few degrees. On several days, strong winds whipped dust into the air in a number of the central and southern Plains States. Thursday morning gusts of 70 m.p.h. were observed at Lubbock, Texas, and 81 m.p.h. at Otto, New Mexico, with Texas reporting the worse "duster" of this year as a haze covered most of the state. In Wyoming, the strong winds caused damage to fences, windmills, haystacks, television antennae and to at least one airplane. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - CALIFORNIA - Light infestation on pastured alfalfa in El Dorado County. First record in County. (Cal. Coop. Rept.).

YELLOW SUGARCANE APHID (*Sipha flava*) - FLORIDA - All stages averaged 75 per square foot on bahia grass in pasture at Bee Ridge, Manatee County. (J. Denmark, Nov. 25).

FRUIT INSECTS

CITRUS BLACKFLY (*Aleurocanthus woglumi*) - MEXICO - During November, 62,172 trees were inspected on 1,709 properties with 37 trees on 13 properties found infested. Surveys in Nuevo Laredo, Matamoros, Monterrey, El Cercado, San Nicolas de los Garzas, Hualahuises, Hermosillo and at Tijuana were negative. Light infestations were found at Hidalgo, Linares, Allende and Montemorelos. (PPC, Mex. Reg., Nov. Rept.).

MEXICAN FRUIT FLY (*Anastrepha ludens*) - MEXICO - In Baja California the 49th and 50th spray applications at Tijuana, the 35th at Tecate and the 41st at Ensenada were completed. During November 36,846 host trees were sprayed on 5,201 properties. Spraying is now suspended in Baja California until middle of March, 1958, or until such time before that date that trapping operations in the area indicate presence of Mexican fruit fly. Trapping operations progressed in the Mexicali, B. C. and San Luis, Sonora areas. A total of 1,098 traps were in operation on 429 properties with 3,633 trap inspections made with negative results. (PPC, Mex. Reg., Nov. Rept.).

A TORTRICID (*Amorbia essigana*) - CALIFORNIA - Infestations on avocado in Los Angeles County to degree where commercial damage is threatened to foliage and fruit. (Cal. Coop. Rept.).

TRUCK CROP INSECTS

BEET LEAFHOPPER (*Circulifer tenellus*) - CALIFORNIA - Survey in the Imperial Valley showed beet leafhopper to average one and four-tenths per 100 sweeps in beet fields compared with 3 per 100 sweeps in November. All females checked were found with eggs fully developed. Populations on winter host plants on the desert were comparable with those in beet fields. (Cal. Coop. Rept.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

BLACK TRUPINTINE BEETLE (*Dendroctonus terebrans*) - NORTH CAROLINA - Infesting lower 12 feet of pine trees, killing approximately 10 percent of stand in Carteret County on November 22. (Venters, Weisman).

A BARK BEETLE (*Leperisinus californicus*) - OREGON - Collected in Portland, November 27. Det. W. J. Chamberlin. (Goeden).

AN ASIATIC RED SCALE (*Aonidiella taxus*) - FLORIDA - Found on podocarpus in nursery at Gulfport, Pinellas County. (H. Denmark).

A SPIDER MITE (*Oligonychus ilicis*) - CALIFORNIA - Reported locally heavy on pyracantha in Sacramento. (Cal. Coop. Rept.).

STORED-PRODUCT INSECTS

KHAPRA BEETLE (*Trogoderma granarium*) - MEXICO - Reinfestation of property found at Molinera del Valle, located on Carretera San Luis, five kilometers from Mexicali, B. C. (PPC, Mex. Reg., Nov. Rept.).

A DERMESTID (Perimegatoma vespulae) - CALIFORNIA - Light in warehouse near Vernalis, San Joaquin County, the closest post office, but actually in Stanislaus County. This represents first record in Stanislaus County but apparently the third record in the State. (Cal. Coop. Rept.).

INSECTS AFFECTING MAN AND ANIMALS

SCREW-WORM (Callitroga hominivorax) - LOUISIANA - Infesting several freshly dehorned cows at Crowley, Acadia Parish. (Oliver).

ADDITIONAL NOTES

LOUISIANA - VEGETABLE WEEVIL larvae are numerous on a weed in some permanent pasture areas of East Baton Rouge Parish. (Oliver).

LIGHT TRAP COLLECTIONS

	Agrotis ypsilon	Feltia subterranea	Pseudaletia unipuncta
FLORIDA			
Gainesville 12/18		1	2
SOUTH CAROLINA (Counties)			
Charleston 12/9-15	1	1	
Oconee 12/14-20	4		

SUMMARY OF INSECT CONDITIONS - 1957

MARYLAND

Compiled by W. C. Harding, Jr.

Highlights: ALFALFA WEEVIL started earlier and injury to unsprayed alfalfa was heavier than in 1956. CODLING MOTH injury to apples increased over 1956. The dry weather during the summer was favorable for CORN EARWORM buildups and late corn, late beans and soybeans suffered heavy damage. EUROPEAN CORN BORER damage to corn, potatoes and wheat lightest since 1954 although heavy damage was done to peppers. Fall population lowest in 3 years. GREEN PEACH APHID populations on tobacco were from moderate to heavy. Over 3000 acres treated. On the Eastern Shore MOSQUITOES were abundant during the latter part of the summer. PINE SAWFLIES infested 210,000 acres of pine in eastern Maryland as shown by aerial surveys. POTATO LEAFHOPPERS were above normal on alfalfa, beans, and potatoes. SPIDER MITES during the season were heavy on ornamentals, soybeans and vegetables. VEGETABLE WEEVIL increased its range on tobacco in beds and is now present in all but one of the five tobacco growing counties. An unusual outbreak of VELVETBEAN CATERPILLARS occurred on soybeans in southern parts of State during September.

Cereal and Forage Insects: ALFALFA WEEVIL (*Hypera postica*) damage to unsprayed first growth alfalfa was heavy. In 1957 the weevil started earlier than in 1956 reaching its peak in central counties from late April to early May. Second-generation adults were noted during early May. Farmers in all counties sprayed with good results. Economic damage was experienced in Allegany County for the first year. No weevils were found in Garrett County. Outbreak numbers of ARMYWORM (*Pseudaletia unipuncta*) appeared in small grain fields in Queen Annes, Talbot, Kent and Worcester Counties during May. Some barley field populations averaged over 10 per linear foot of row. Some replanting of sweet corn was necessary in Queen Annes County. BEAN LEAF BEETLE (*Cerotoma trifurcata*) was abundant on soybeans in most sections during June. CLOVER LEAF WEEVIL (*Hypera punctata*) numbers on alfalfa and clover during the spring were below normal. CLOVER ROOT CURCULIO (*Sitona hispidula*) adult populations taken in sweep-net sampling during the spring were about normal. CORN EARWORM (*Heliothis zea*) was from light to moderate in early corn and heavy in late corn. Soybeans suffered considerable pod damage late in the season. Dry weather during the summer was apparently very favorable for earworm buildups. Populations of the CORN FLEA BEETLE (*Chaetocnema pulicaria*) on sweet and field corn were well above normal in all sections. Numerous cases of bacterial wilt were reported from the Eastern Shore. CORN LEAF APHID (*Rhopalosiphum maidis*) generally caused from light to moderate injury to the tassels and top leaves of field and sweet corn in most sections. A few heavy infestations were recorded. CORN ROOT APHID (*Anuraphis maidi-radicis*) caused some light injury to young field corn in Kent and Talbot Counties during June. CUTWORMS were generally below normal on corn, light to moderate damage was done to corn plated after sod in Queen Annes County. EUROPEAN CORN BORER (*Pyrausta nubilalis*). Some early corn on the lower Eastern Shore and in Frederick and Carroll Counties suffered from moderate to heavy damage with many fields being from 40 to 90 percent infested. Mid-season and late corn was lightly infested generally. Surveys for second brood eggs showed extremely low numbers due to dry weather. The fall population survey showed the state average to be 60 borers per 100 plants, the lowest since 1954. Damage to wheat was less than in 1956. FALL ARMYWORM (*Laphygma frugiperda*) appeared on corn in late July on the Eastern Shore and by mid-August infestations were general in the central and southern counties. One 40 acre field in Anne Arundel County showed 90 percent of the plants infested. Heavier than usual. GRASSHOPPERS were from light to moderate in clover and alfalfa in the central counties. A few heavy infestations noted in Montgomery County. *Melanoplus differentialis* and *Melanoplus femur-rubrum* caused light injury to field corn and soybeans in southern counties during August. GREEN CLOVERWORM (*Plathypena scabra*) infestations were general on soybeans on the Eastern Shore and in southern areas during August. In some fields populations averaged over 20 per sweep. Damage was primarily to the foliage. JAPANESE BEETLE (*Popillia japonica*) was heavier than usual on corn and soybeans. Moderate to heavy injury was done to the silks of sweet corn in the Wye Mills area of Queen Annes and Talbot counties. LESSER CLOVER LEAF WEEVIL (*Hypera nigrirostris*) caused from light to moderate injury to red and ladino clover in most sections. MEADOW SPITTLEBUG (*Philaenus leucophthalmus*) was somewhat below normal on alfalfa and clover except from Washington County westward where it ranged from moderate to heavy. Some alfalfa fields in Allegany County averaged 5 nymphs per stem. PEA APHID (*Macrosiphum pisi*) was slightly below normal on alfalfa, but heavy in Allegany and Washington counties. POTATO LEAFHOPPER (*Empoasca fabae*) was first collected on alfalfa at Easton on May 22. In general populations on alfalfa were above normal, injury being noted in the central counties. SAP BEETLES in the ears of sweet and field corn were about normal, declining somewhat at the end of summer. SOD WEBWORMS (*Crambus* spp.) killed 90 percent of the young sweet corn plants in a 40 acre field in Talbot County during June. Also reported from Montgomery County. SOUTHERN CORNSTALK BORER (*Diatraea crambidoides*) caused light injury to field corn in southern counties during June. SPIDER MITES were heavy on soybeans particularly on the Eastern Shore during August. Many fields required treatment. TARNISHED PLANT BUG (*Lygus lineolaris*) was common in alfalfa and clover fields in all sections during the season. During June THRIPS caused streaking of corn in most sections, although most corn outgrew the injury. They were also abundant on soybeans on the Eastern Shore and some leaf drop resulted early in the season. Specimens collected on soybeans in Caroline County were identified as *Sericothrips variablis*. VELVETBEAN CATERPILLAR (*Anticarsia gemmatalis*) larvae were abundant and heavily damaged 50 acres of soybeans in Prince Georges County during late September. Also found on soybeans in St. Marys County. A WEBWORM (*Tortrix pallorama*) seriously damaged an alfalfa field in Allegany County during May. Control needed. WIREWORMS caused light injury to field corn in southeastern Wicomico County during Juen. Very light elsewhere. A CATERPILLAR (*Acrolophus popeanellus*) damaged a lawn and pasture in Somerset County during September.

Fruit Insects: CODLING MOTH (*Carpocapsa pomonella*) damage to apples varied from light to heavy. The hot dry summer was favorable for development and in general damage was heavier than in 1956. EUROPEAN RED MITE (*Panonychus ulmi*) caused light damage to apple foliage early in the season, otherwise, it was kept under control. Moderate damage in a Howard County orchard in May. PERIODICAL CICADA (*Magicicada septendecim*) - An infestation of Brood XIV occurred in the southern part of Washington County adjacent to West Virginia. Serious damage was done in three or four apple orchards. RED-BANDED LEAF ROLLER (*Argyrotaenia velutinana*) populations were above normal. In some apple orchards there appears to be resistance to the insecticide used for its control. TWO-SPOTTED SPIDER MITE (*Tetranychus telarius*) was lighter on apple than in 1956. UNSPOTTED TENTIFORM LEAF MINER (*Callisto geminatella*) damage during 1957 was less than in previous years. Serious defoliation, however, occurred in two or three apple orchards where it had not been previously reported. Growers following the recommended sprays obtained excellent control of the following peach pests: ORIENTAL PEACH MOTH (*Grapholitha molesta*), PLUM CURCULIO (*Conotrachelus nenuphar*), PEACH TREE BORER (*Sanninoidea exitiosa*), and CATFACING INSECTS. On strawberries the STRAWBERRY WEEVIL (*Anthonomus signatus*) caused less concern than in 1956. MEADOW SPITTLEBUG (*Philaenus leucophthalmus*) was generally light. In Allegany County a STRAWBERRY ROOT WEEVIL (*Brachyrhinus rugosostriatus*) killed long sections of row in one field.

Truck Crop Insects: ASPARAGUS BEETLES (*Crioceris asparagi* and *C. duodecimpunctata*) during the season were somewhat below normal at Elkton and Beltsville. BEAN LEAF BEETLE (*Cerotoma trifurcata*) on beans was about normal. CABBAGE APHID (*Brevicoryne brassicae*) was heavier than usual on broccoli and cabbage, particularly late in the season in central Maryland. CABBAGE LOOPER (*Trichoplusia ni*) was somewhat below normal on cole crops. COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) was slightly below normal on potato and tomato. CORN EARWORM (*Heliothis zea*) was severe, doing considerable damage to the pods of late snap and lima beans in most sections. The dry weather during the summer was apparently favorable for population buildups. CUTWORMS were below normal, however, the BLACK CUTWORM

(Agrotis ypsilon) seriously damaged sweetpotatoes underground at Salisbury in September. Over 200 bushels in one field were lost. EUROPEAN CORN BORER (Pyrausta nubilalis) damage to peppers during late August was severe, particularly in the Snow Hill area. Injury to potatoes was less than in 1956. FLEA BEETLES (Epitrix cucumeris) on potatoes and (E. hirtipennis) on tomotes, were from moderate to heavy particularly on young plants during most of the season. GARDEN FLEAHOPPER (Halticus bracteatus) was abundant on beans, potatoes and tomatoes in Allegany County during July. GREEN CLOVERWORM (Plathypena scabra) moderately damaged snap and lima beans in Baltimore and Caroline Counties. Light injury to tomato foliage was noted at Snow Hill in August. HORNWORMS (Protoparce spp.) were above normal on tomatoes. Heavy infestations were noted in Anne Arundel and Queen Annes Counties. IMPORTED CABBAGEWORM (Pieris rapae) was abundant on cabbage throughout the summer in all sections. MEXICAN BEAN BEETLE (Epilachna varivestis) was somewhat heavier than normal, with most commercial snap and lima bean acreages requiring treatment with insecticides. Populations of the PEA APHID (Macrosiphum pisi) were slightly below normal. POTATO APHID (Macrosiphum solanifolii) was generally light to moderate on potatoes and tomatoes. However, severe injury was done to the foliage of late tomatoes in the central sections. POTATO LEAFHOPPER (Empoasca fabae) populations on potatoes and beans were considerably above normal, more abundant then in 1956. Crops not treated suffered considerable injury. A SERPENTINE LEAF MINER (Liriomyza, propepusilla group) injured potato foliage at Salisbury during June. SPIDER MITES were a serious problem on beans, curcurbits and tomatoes, particularly on the Eastern Shore. Dry weather is believed responsible for the increase. SQUASH BUGS (Anasa tristis) were heavier than usual on cucurbits in most sections. STRIPED CUCUMBER BEETLE (Acalymma vittata) nymbers were above normal on cucurbits and sprays were needed to control them. TOMATO FRUITWORM (Heliothis zea) was about normal in most sections, however, there was some local heavy damage to tomatoes in Queen Annes and Anne Arundel Counties. Infestations of the TOMATO RUSSET MITE (Vasates lycopersici) were reported from the Snow Hill area in July. VINEGAR GNATS were again abundant at tomato canneries late in the season. The 1957 survey for the GOLDEN NEMATODE (Heterodera rostochiensis) proved negative.

Tobacco Insects: CUTWORMS were below normal on tobacco in beds and in the field. GREEN JUNE BEETLE (Cotinis nitida) larvae were more troublesome than usual, particularly in Calvert County. GREEN PEACH APHID (Myzus persicae) infestations began in mid-July and were above normal ranging from moderate to heavy. It is estimated that by the end of August over 3500 acres were treated (principally by aircraft) for aphids and/or hornworms. HORNWORMS (Protoparce spp.) were not as serious as in 1956 which was a record year. Generally populations of both broods were about normal. TOBACCO BUDWORM (Heliothis virescens) was the heaviest in years on tobacco in all five tobacco growing counties. Controls needed. TOBACCO FLEA BEETLE (Epitrix hirtipennis) was generally light on plants in the bed, however, moderate to heavy numbers were present on plants in the field, particularly newly set plants. VEGETABLE WEEVIL (Listroderes costirostris obliquus) increased its range during 1957 and is now present in all but one of the five tobacco growing counties. Damage to plants in beds was spotty, although some heavy infestations were noted in Calvert County.

Man and Animal Insects: AMERICAN DOG TICK (Dermancentor variabilis) was prevelent in most sections throughout the summer. BLACK FLIES, particularly Simulium jenningsi, were abundant in the greater metropolitan area of Washington and caused considerable annoyance to man by swarming about the head. BROWN DOG TICK (Rhipicephalus sanguineus) infestations in homes were more numerous than in 1956. Reports of BLACK WIDOW SPIDER (Latrodectus mactans) infestations in homes were about normal. CATTLE LICE were more abundant than usual. COMMON CATTLE GRUB (Hypoderma lineatum) was not the problem on cattle as in previous years. CHIGGERS seemed to be about as abundant as in 1956. Above normal. DEER FLIES were troublesome to man on the Eastern Shore during the summer. FLEAS troubled cats, dogs, and humans in most sections. HORN FLY (Siphona irritans) was a serious problem on dairy cattle in central Maryland. HOUSE FLY (Musca domestica) was a problem about homes and barn where sanitation was lacking. MOSQUITOES, particularly the salt-water mosquitoes Aedes sollicitans and Aedes taeniorhynchus, were generally light on the Eastern Shore during early mid-summer, however, they became very abundant and annoying during the later part of the summer due to rains and high tides. Several large permanent control projects were started in the marsh areas of the Eastern Shore.

Forest, Ornamental and Shade Tree Insects: APHIDS were normal on Norway maple, rose, tulip poplar and oaks. BAGWORM (*Thyridopteryx ephemeraeformis*) did extensive damage to evergreens and deciduous trees and shrubs in most sections. FALL CANKERWORM (*Alsophila pometaria*) caused serious defoliation to over 1000 acres of chestnut oaks and associated species on Sugarloaf Mountain in late April. Little or no feeding observed on maple, yellow poplar, gum and dogwood. The early emergence in June of JAPANESE BEETLE (*Popillia japonica*) caused homeowners considerable concern in the suburban areas of Washington and Baltimore. Damage to roses and other ornamentals was about normal. LOCUST LEAF MINER (*Chalepus dorsalis*) did heavy damage to black locust foliage over the entire State being particularly severe in central areas. PINE ENGRAVER BEETLES (*Ips* sp.) seriously infested groups of loblolly pine on the Eastern Shore and white pine in Garrett County. PINE SAWFLIES - Aerial surveys by the Beltsville Forest Insect Laboratory showed that *Neodiprion pratti* infested over 210,000 acres of pine in eastern area. This represents a spread of the 1956 infestation. Although no extensive area of severe feeding was recorded, complete stripping and some tree mortality was noted in spots. *Neodiprion lecontei* was reported abundant in western Maryland. SCALE INSECTS were abundant and troublesome during the year. Among those causing concern were EUONYMUS SCALE (*Unaspis euonymi*) on euonymus, OBSCURE SCALE (*Chrysomphalus obscurus*) on oak, OLIVE SCALE (*Parlatoria oleae*) on privet at Baltimore, OYSTERSHELL SCALE (*Lepidosaphes ulmi*) on lilac, PINE NEEDLE SCALE (*Phenacaspis pinifoliae*) on various pines, PINE TORTOISE SCALE (*Toumeyella numismaticum*) on Virginia pine and TULIPTREE SCALE (*Toumeyella liriodendri*) on tuliptree and magnolia. A SCALE (*Fiorinia externa*) was troublesome on hemlock in the Towson area. SMALLER EUROPEAN ELM BARK BEETLE (*Scolytus multistriatus*) was more abundant than usual which resulted in an increase in the incidence of Dutch Elm Disease. SPIDER MITES were the heaviest on shrubs and shade trees in recent years. Dry weather favored buildups. Other pests that did damage to trees and ornamentals were ASIATIC GARDEN BEETLE (*Autoserica castanea*), ASIATIC OAK WEEVIL (*Cyrtepistomus castaneus*), BOXWOOD PSYLLA (*Psylla buxi*), EASTERN TENT CATERPILLAR (*Malacosoma americanum*), ELM LEAF BEETLE (*Galerucella xanthomelaena*), HOLLY LEAF MINER (*Phytomyza ilicis*), LACE BUGS on azalea, oak, rhododendron and sycamore, MIMOSA WEBWORM (*Homadaula albizziae*) on mimosa and honeylocust, THRIPS and TREE BORERS. In lawns and pastures grubs of the JAPANESE BEETLE (*Popillia japonica*), and NORTHERN MASKED CHAFER (*Cyclocephala borealis*) were destructive in suburban areas during August and September. A LEAF ROLLER (*Nephopteryx uvinella*) damaged sweetgum at Lexington Park during July.

Stored-Product Insects: ANGOUMOIS GRAIN MOTH (*Sitotroga cerealella*) was heavier than usual in stored corn and small grains in most sections. LESSER MEALWORM (*Alphitobius diaperinus*) infested the corn cob litter of poultry houses in Dorchester and Talbot Counties. Other pests of stored products reported were CADELLE (*Tenebroides mauritanicus*), in wheat, barley and rye, CONFUSED FLOUR BEETLE (*Tribolium confusum*) in wheat, GRANARY WEEVIL (*Sitophilus granarius*) in wheat and barley, GRAIN MITES in feed mixtures, barley and wheat, INDIAN-MEAL MOTH (*Plodia interpunctella*) in meal, RICE WEEVIL (*Sitophilus oryza*) in barley and wheat, SAW-TOOTHED GRAIN BEETLE (*Oryzaephilus surinamensis*) in small grains and POTATO TUBERWORM (*Gnorimoschema operculella*) in stored potatoes.

Household Insects: CLOVER MITES (*Bryobia praetiosa*) were again abundant during the spring, particularly in central areas and caused annoyance by entering homes. More than the usual number of cases of MILLIPEDES entering homes were reported. Other pests that troubled homeowners were ANTS, BOXELDER BUG (*Leptocoris trivittatus*), COCKROACHES, particularly the BROWN-BANDED ROACH (*Supella supellectilium*), CENTIPEDES, CARPET BEETLES, GROUND BEETLES, OLD-HOUSE BORER (*Hylotrupes bajulus*), POWDER POST BEETLES, SILVERFISH (*Lepisma saccharina*), TERMITES and WASPS.

Miscellaeneous: BUCK MOTH (*Hemileuca maia*) - Picking operations in a strawberry field in Wicomico County during late May were halted due to stings received by pickers from caterpillars of this species. The caterpillars had migrated to the strawberry field from nearby oaks.

Black Light Trap Notes: The predominating CUTWORM MOTH species caught during the season at Fairland and Salisbury were the BLACK CUTWORM (*Agrotis ypsilon*) and the VARIEGATED CUTWORM (*Peridroma margaritosa*). Adults of the POTATO LEAFHOPPER (*Empoasca fabae*) first appeared in the trap at Fairland during the last week of May. During August heavy numbers of HORNWORM MOTHS (*Protoparce* spp.) occurred at Salisbury. During August and September moths of the DINGY CUTWORM (*Feltia subgothica*) appeared in large numbers in the trap at Fairland. Light numbers of the VELVETBEAN CATERPILLAR (*Anticarsia gemmatalis*) were taken at Salisbury during late August and early September.

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

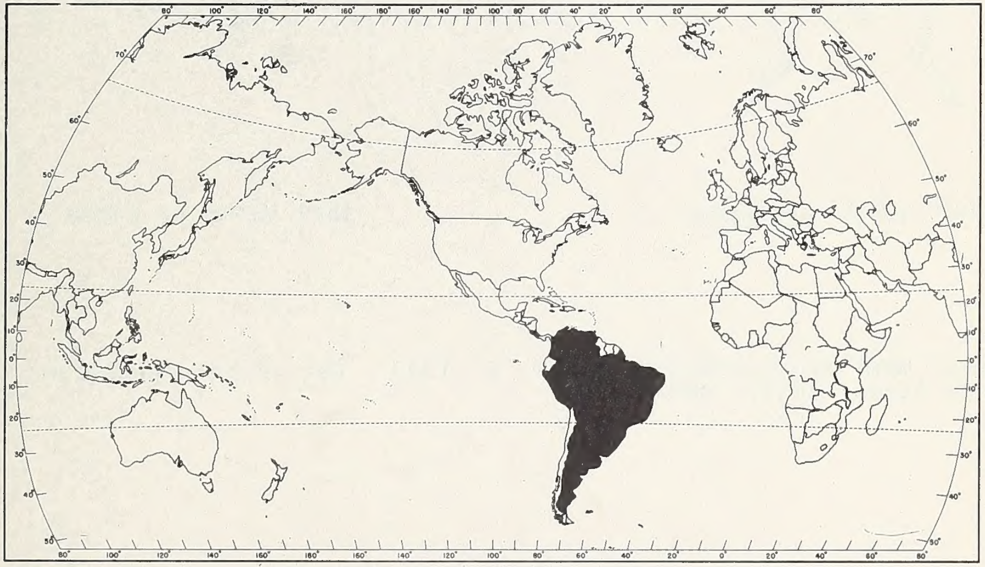
CUCURBIT BEETLE* (Diabrotica speciosa Germ.)

Economic Importance: Adults of this chrysomelid feed on foliage, flowers and fruits of many plants. The larvae are pests on roots, especially corn and peanuts. It is the most harmful species of Diabrotica in Argentina and causes much damage to watermelon, squash and tomatoes in Brazil. Young squash plantings and immature tomato fruits are severely damaged in the latter country. Populations are so heavy in some years in Paraguay that vegetable crops are almost completely destroyed. Severe injury also occurs on flowers of various ornamentals such as dahlias and chrysanthemums. D. speciosa has been intercepted at United States port of entry on several occasions.

Damage to Corn Seedling

Damage to Melon Leaves and Flowers

Distribution: Reported from Argentina, Brazil, Uruguay, Paraguay, Columbia, Bolovia, Costa Rica, Panama, Peru and Venezuela.



General Distribution of Cucurbit Beetle

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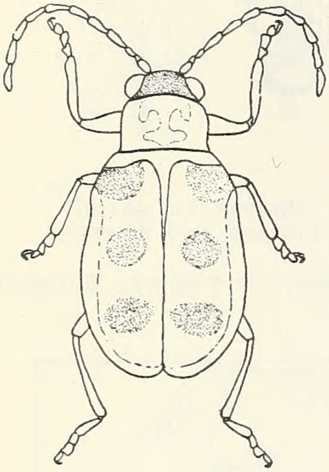
* Also called chrysanthemum beetle and San Antonio beetle

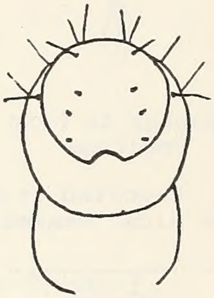
Hosts: General feeder. More important hosts include cucurbits, corn, sorghum, beets, crucifers, peas, beans, cotton, potato, tomato, apple, peach, citrus.

Life History and Habits: The insect overwinters as an adult, emerging on warm spring days. Oviposition begins soon after emergence. Eggs hatch in about 10 days. The larvae bore into and feed on roots. Pupation occurs in the soil. The adults feed on leaves, flowers, and fruits of many plants, especially composites. Number of generations a year varies, but in the Buenos Aires area, observations indicate there are about three.

Description: Adults oval, 5-7 mm. long, similar to *D. balteata*. Dorsum generally bright grass-green with 6 large yellow-green or ochreous spots on the elytra with humeral areas reddish-brown. Head reddish-brown, eyes black. Ventral surface yellow-green. Tibia and tarsi dark colored, remainder of legs yellow or brownish. Egg clear yellow. Larvae 1.5 mm. on hatching, whitish with dirty yellow head. Fully grown larvae measure 10-15 mm.



Adult of *D. speciosa*



Anal Plate of Larva

Figures (except map) from Christensen, Jr. R. 1943. Rev. Facul. de Agron. y Vet. (Buenos Aires) 10(3): 464-516.